

In the Claims

Claims 1-3, 5-18, and 20-29 are pending before entry of this response.

Claims 4 and 19 were cancelled previously.

Pending claims 1-3, 5-18, and 20-24 are cancelled without waiver, prejudice, or disclaimer, resulting in the cancellation of claims 1-24 cumulatively.

Claims 25-29 remain pending after entry of this response.

1. – 24. (Cancelled).

25. (Previously presented) A managed network element for handling a data packet, the managed network element connected to a plurality of managed network elements, the data packet to be afforded one of a plurality of service classes, wherein the service class is predetermined at one of the plurality of managed network elements, comprising, a memory, a processor in communication with the memory, executable code running on the processor, and a forwarding table stored in the memory, the memory, processor, executable code, and the forwarding table collectively comprising the element resources, the element resources being partitioned into a plurality of element instances, each element instance being engineered to provide one of the service classes, wherein the element instances providing identical service classes are connected to one another via permanent virtual circuits.

26. (Original) The network element of claim 25, wherein the element resources further comprise an application specific integrated circuit.

27. (Original) The network element of claim 25, wherein the element resources further comprise a programmable gate array.

1 **28.** (Original) The network element of claim 25, wherein the element
2 resources further comprise a reprogrammable gate array.

3 **29.** (Previously presented) A managed network element for handling a
4 data packet, the managed network element connected to a plurality of managed
5 network elements, the data packet to be afforded one of a plurality of service
6 classes, wherein the service class is predetermined at one of the plurality of
7 managed network elements, comprising, a memory, a processor in communication
8 with the memory, a forwarding table stored in the memory, and an application
9 specific integrated circuit (ASIC), the memory, processor, ASIC, and forwarding
10 table comprising the element resources, the element resources being partitioned
11 into a plurality of element instances, each element instance being engineered to
12 provide one of the service classes, wherein the element instances are connected to
13 each other via permanent virtual circuits.
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